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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/719,148

11/21/2003

Shiro Kawamoto

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EXAMINER

ALI, HYDER

ART UNIT

PAPER NUMBER

3747

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/11/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

14

Office Action Summary

Application No.

10/719,148

Applicant(s)

KAWAMOTO, SHIRO

Examiner

HYDER ALI

Art Unit

3747

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-11,14-16 and 20-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11,14-16 and 27 is/are allowed.
- 6) ☒ Claim(s) 1 and 20-25 is/are rejected.
- 7) ☒ Claim(s) 2,3,5-10 and 26 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 2/21/07 & 1/25/07.

- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claims 21 and 25 objected to because of the following informalities: As to Claim 21, the limitation "non-crankcase engine components" should read "non-crankcase environment components". As to Claim 25, the limitation "non-crankcase engine components" should read "non-crankcase environment components". Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 20-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Kronich (US 4,601,267) in view of Haberlein et al (US 6,109,251).

Kronich discloses lubrication system for the upper valve mechanism of an overhead valve, single cylinder, four stroke, and internal combustion engine. See col. 1, lines 5-10. Kronich discloses a valve lifter mechanism lubrication system whereby oil mist is caused to flow from the crankcase in a loop circuit to lubricate the valve lifter mechanism. See col. 2, lines 54-57. Kronich discloses a valve rocker mechanism is lubricated without the need for additional pumps to pump oil from the sump to the rocker box. See col. 2, lines 20-24.

Art Unit: 3747

Kronich does not disclose rapidly moving parts cause oil mist in the crankcase. The rapidly moving parts are directly vibrating the crankcase and the oil. The rapidly moving parts are the means for vibrating and they are coupled to the crankcase.

Haberlein et al discloses rapidly moving parts cause oil mist in the crankcase. The rapidly moving parts are directly vibrating the crankcase and the oil. The rapidly moving parts are the means for vibrating and they are coupled to the crankcase. See col. 2, lines 66-67; and col. 3, line 1.

It would have been obvious to a person having ordinary skill in the art to modify Kronich by employing rapidly moving parts cause oil mist in the crankcase. The rapidly moving parts are directly vibrating the crankcase and the oil. The rapidly moving parts are the means for vibrating and they are coupled to the crankcase as disclosed by Haberlein et al **in order to** provide Kronich engine with a mechanism to mist oil from the oil reservoir. **The motivation to do so** would have been to lubricate non-crankcase environment engine components without the need for oil pump.

As to Claim 20, Haberlein et al discloses wherein the vibration mechanism (rapidly moving parts) is mounted on the crankcase.

As to Claim 21, Kronich discloses wherein the non-crankcase environment engine components include valving components.

As to Claim 22, Kronich discloses wherein the valving components include at least one of an intake valve or an exhaust valve.

As to Claim 23, Kronich discloses wherein the valving components include valve drive train components.

Art Unit: 3747

As to Claim 24, Kronich discloses wherein the valve drive train components include at least one of a rocker arm, valve spring, pushrod, or cam.

As to Claim 25, Kronich discloses wherein the engine includes at least one passage therein to permit fluid communication between the crankcase and the non-crankcase environment engine components.

Allowable Subject Matter

Claims 11, 14-16 and 27 are allowed.

Claims 2,3,5-10 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments with respect to claims 1-3,5-11,14-16,20-27 have been considered but are moot in view of the new ground(s) of rejection. This **Action is made Non-Final** because previously objected claims 20-25 are now being rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HYDER ALI whose telephone number is (571) 272-4836. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Kirk Cronin can be reached on (571) 272-4536. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hyder Ali
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Tony M. Ardenbright
Tony M. Ardenbright
Primary Examiner
Art Unit 3747